



Product designation	Power contactor		
Product type designation	BF400		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage $U_i$ IEC/EN	V	1000	
Rated impulse withstand voltage $U_{imp}$	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th}$		A	600
Operational current $I_e$			
	AC-1 ( $\leq 40^\circ\text{C}$ )	A	600
	AC-1 ( $\leq 55^\circ\text{C}$ )	A	500
	AC-1 ( $\leq 70^\circ\text{C}$ )	A	435
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	400
	AC-4 (400V)	A	190
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW	110
	400V	kW	200
	415V	kW	200
	440V	kW	200
	500V	kW	250
	690V	kW	315
	1000V	kW	200
Rated operational current AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	A	400
	400V	A	400
	415V	A	400
	440V	A	400
	500V	A	350
	690V	A	350
	1000V	A	155
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	227
	400V	kW	395
	500V	kW	434
	690V	kW	681
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A	400
	110V	A	250
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	75V	A	400
	110V	A	400
	220V	A	350
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series			

	75V	A	400
	110V	A	400
	220V	A	400
	330V	A	350
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
	75V	A	400
	110V	A	400
	220V	A	400
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
	75V	A	350
	110V	A	200
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	75V	A	350
	110V	A	350
	220V	A	280
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	75V	A	350
	110V	A	350
	220V	A	350
	330V	A	280
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	75V	A	350
	110V	A	350
	220V	A	350
	330V	A	350
	460V	A	280
Short-time allowable current for 10s (IEC/EN60947-1)			
Protection fuse		A	3200
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	4000
Breaking capacity at voltage			
	440V	A	3200
	500V	A	2752
	690V	A	2504
Resistance per pole (average value)		$\text{m}\Omega$	0.12
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	43.2
	AC-3	W	19
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	Ibin	310
	max	Ibin	310
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position		normal allowable	Vertical plan $\pm 30^\circ$
Fixing			Screw

**Operations**

Mechanical life	cycles	5000000
Electrical life	cycles	600000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	600000
mechanical load	cycles	5000000

**EMC compatibility**

AC coil operating	yes
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Rated AC voltage at 50/60Hz, 60Hz

min	V	60
max	V	130

**AC operating voltage**

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	80 Us min
max	%Us	110 Us max

drop-out

max	%Us	≤70 Us min
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of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	80 Us min
max	%Us	110 Us max

drop-out

max	%Us	≤70 Us min
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**AC average coil consumption at 20°C**

of 50/60Hz coil powered at 50Hz

in-rush	VA	160...320
holding	VA	3.5...8.0

of 50/60Hz coil powered at 60Hz

in-rush	VA	160...320
holding	VA	3.5...8.0

of 60Hz coil powered at 60Hz

in-rush	VA	160...320
holding	VA	3.5...8.0

Dissipation at holding ≤20°C 50Hz

W	3.5...8.0
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**DC coil operating**

DC rated control voltage	min	V	60
	max	V	130

**DC operating voltage**

pick-up

min	%Us	85 Us min
max	%Us	110 Us max

drop-out

max	%Us	≤70 Us min
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Average coil consumption ≤20°C

in-rush	W	160...230
holding	W	3.5...8.0

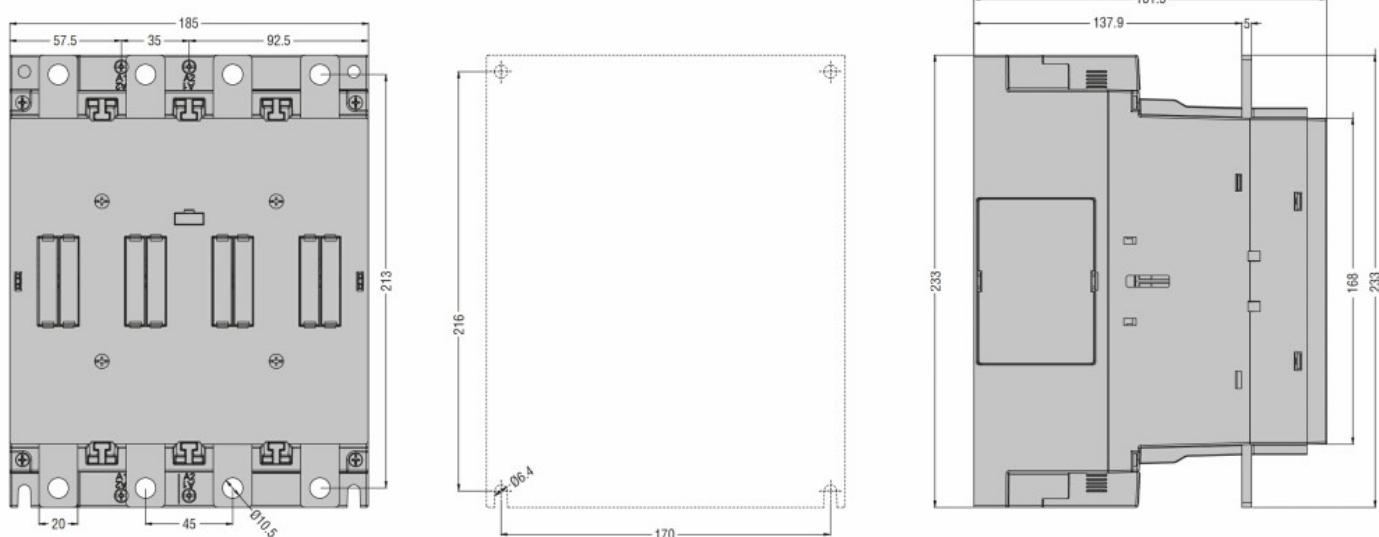
**Max cycles frequency**

Mechanical operation	cycles/h	1000
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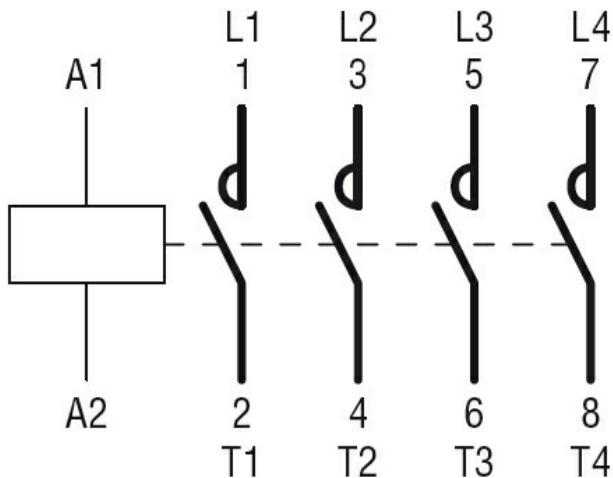
**Operating times**

Average time for Us control

in AC			
Closing NO	min	ms	80
	max	ms	120
Opening NO	min	ms	30
	max	ms	75
<b>UL technical data</b>			
Rated operational voltage AC (UL)	V	600	
Yielded mechanical performance			
for three-phase AC motor			
	200/208V	HP	125
	220/230V	HP	150
	460/480V	HP	350
	575/600V	HP	400
<b>General USE</b>			
Contactor	AC current	A	600
Short-circuit protection fuse, 600V			
High fault	Short circuit current	kA	100
	Fuse rating	A	600
	Fuse class		J
Standard fault	Short circuit current	kA	18
	Fuse rating	A	600
	Fuse class		RK5
<b>Ambient conditions</b>			
Temperature			
Operating temperature	min	°C	-40
	max	°C	70
Storage temperature	min	°C	-50
	max	°C	80
Max altitude	m	3000	
<b>Resistance &amp; Protection</b>			
Pollution degree		3	
Dimensions			



### Wiring diagrams



### Certifications and compliance

#### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

#### Certificates

cULus

### ETIM classification

#### ETIM 8.0

EC000066 -  
Power contactor,  
AC switching